

Recent News

HKBU Computer Science Scholars Listed Among World's Top 2% Scientists 2023



The Department of Computer Science continues to make its mark on the global scientific community. A total of nine faculty members, including six featured in the "Career-Long Impact List" and eight in "Single-Year Impact List", have been recognised for their pioneering research, landing them among the World's Top 2% most-cited scientists, according to the a newly released list by Stanford University.

Professor Jianliang Xu, the Head of the Department, expresses his deepest congratulations to the esteemed Professors. "Our faculty's remarkable accomplishments and dedication continue to enhance HKBU's standing on the global stage. I am immensely proud of their achievements," he shared.

The rankings, compiled by the research team led by Professor John Ioannidis, are based on the "Updated Science-wide author databases of standardised citation indicators". This list encompasses 100,000 leading scientists, based on their careerlong citation impact (until the end of 2022) and single-year citation impact (2022). The scientists are classified into 22 scientific fields and 174 sub-fields. The rankings are calculated based on standardised information of citations, h-index, co-authorship-adjusted hm-index, citations to papers in different authorship positions, and a composite indicator.

To view the details, please click here

HKBU Identifies Future Al Talent with Al x HK OpenCup to Address Global Sustainable Development Challenges



Co-hosted by the Department of Computer Science and Faculty of Science, Hong Kong Baptist University (HKBU) successfully organised the inaugural "AI x HK OpenCup" competition this year with the Hong Kong Society of Artificial Intelligence and Robotics. The contest encouraged youngsters to address sustainability challenges in Hong Kong with innovative ideas and artificial intelligence (AI) technologies. The award presentation ceremony was held on 25 November.

The competition was well received by students in Hong Kong, and 69 teams joined its Secondary Students Category, while a further 152 teams signed up for the Tertiary Students Category. A total of about 920 students participated in the tournament.

The OpenCup is an original and innovative competition scheme which provides an excellent platform for talented, up-and-coming young people. The contest enables them to ideate innovative AI solutions to address real-world problems under the four chosen Sustainable Development Goals of the United Nations, namely good health and well-being, quality education, sustainable cities and communities, and climate action, in the Hong Kong context with their innovative minds, AI technologies, and collaborative efforts.

Professor Jiming Liu, Associate Vice-President (Research Development) and Dean of Science at HKBU, said: "Innovation and technology continue to foster global and social development. The OpenCup engenders an innovation-enriched platform that enables young talent to envision the future of AI technologies for tackling global challenges and adding new value to the community."

Please refer to the event website for more information.

Annual Postgraduate Research Symposium Nurtures Excellence in Academic Pursuits

The annual Postgraduate Research Symposium, a highly anticipated event on our postgraduates' calendar, was successfully held on 2-3 June 2023. The two-day event featured stimulating presentations, poster exhibitions, and a newly introduced off-campus day camp for relaxation and fun activities.

The Symposium kicked off with an inspiring keynote speech by Professor Baochun Li from the University of Toronto, titled "Writing Perfect Papers (Abridged and Updated, 2023)". Professor Li shared his expertise in crafting exceptional academic research papers and provided practical tips to students on how to embark on research journeys, identify significant problems, maximise reproducibility, ensure equitable comparisons, draw robust conclusions, track research progress, and uphold the paramount importance of meticulous editing.

This year, nearly fifty postgraduates presented their research covering various topics, including artificial intelligence, database management, computer vision, machine learning, recommender systems, blockchain technology, networking, and related fields. The Symposium provided an annual platform for students to showcase their research work, receive feedback and suggestions, refine their ideas, and improve the quality of their research.

"This annual Postgraduate Research Symposium has become an integral part of the postgraduate education in the Department," said Professor Jianliang Xu, Head of the Department. "It not only stock takes our students' research progress, enhances their performance through constructive discussions among peers and faculty members, and also builds strong connections through different social activities to provide the best postgraduate learning experience."

To foster camaraderie among students, the Department organised different social events

such as BBQ, hiking, and sports. This year, an off-campus day camp was introduced after the rigorous poster presentations. The postgraduates had a great time and relished the opportunity to unwind and connect with each other, further strengthening their bonds.



A Computer Science Research Team Launches Hong Kong COVID-19 Hotspot Map



A research team led by Professor Jianliang Xu, Head of the Department of Computer Science has launched the Hong Kong COVID-19 Hotspot Map which allows the intuitive visualisation of real-time and dynamic geographic distribution of COVID-19 cases in Hong Kong. The map is supported by novel computation methods of big spatial-temporal data developed by the team with substantially enhanced resolution and speed in visualisation results output.

Mastering timely and accurate information on the geographic distribution of COVID-19 infection cases is important for the implementation of effective infection control measures and allocation of medical resources against the pandemic by related authorities. Such information is also useful for members of the public in understanding the health risks they are facing.

Lunchbite

To offer a channel for students to share ideas and raise questions regarding the study and life in Hong Kong and HKBU, one lunchbite has been held on 12 October 2022. Our alumni, ZHENG Xingrui Chris was invited to share the study experience in HKBU and life in Hong Kong. All students enjoy the sharing and there are a lot pleasant discussions in the gatherings.



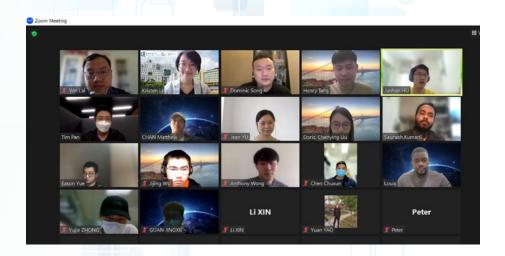
Another lunchbite session was organized on 7 February 2023, to let students who got high distinction and distinction scholarships in the first semester share experience with other peers. Four scholarship awardees shared their experience.



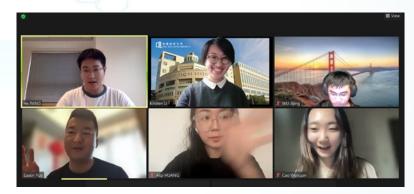
Virtual Professional Mentorship Gathering

16 alumni have joined the Professional Mentorship Scheme 2023-24 as mentors to interact with 54 mentees. Three mentoring gatherings were held on 5 Nov 2022, 25 Feb 2023 and 25 March 2023. Mentors shared their working experience, the practices in the industry, and provided advices to the mentees regarding career planning.

Through the Professional Mentorship Scheme, mentors can guide and share their experience with their mentees, so that mentees can plan their future ahead! We look for your participation to join to the scheme as a mentor or a mentee. Stay tuned!







MSc Scholarship Presentation

The Department was delighted to present MSc Fellowship, MSc Entrance Scholarships and UGC's Targeted TPg Programmes Fellowship to our freshmen who had excellent academic records in their undergraduate studies. The scholarship ceremony was held on 12 Nov, 2022 in which Dr. Kristen Li, Associate Programme Director of MSc programmes, awarded the certificate and prize to each scholarship recipient.

The Department also presented the MSc Research/High Distinction/Distinction/Merit Scholarships to award students outstanding academic performances in Semester 1 and semester 2 respectively. The scholarship ceremonies were held on 10 February and 13 July 2023 in which Dr. Kristen Li, Associate Programme Director of MSc programmes, awarded the certificate and prize to each scholarship recipient.







Beyond the Classroom: A Journey of Discovery and Innovation in Singapore for Computer Science Students

To broaden their horizon in the field of innovation and sustainability, a group of 28 computer science undergraduate and postgraduate students participated in a study tour to Singapore from 23 to 27 May. Organised by the Department of Computer Science, this eye-opening experience was our first global connection programme since the outbreak of the COVID-19 pandemic in early 2020.

The tour was filled with diversified learning experience and activities. In addition to academic and cultural exchanges with students and teachers of the National University of Singapore (NUS), the students visited global mega technology companies including Grab, Nvidia, and Singapore Telecommunications Limited (Singtel), and explored Singapore's innovative and sustainable smart city projects.

"This tour was more diverse and plentiful than I expected. It included academic discussions, industry experiences, and visits to local cultural sites. We visited NUS and had a thought-provoking research discussion with faculty members and students, additionally, enjoyed a delicious local lunch in the student canteen. The trip concluded with visits to the Urban Planning Exhibition Hall and HDB LIVINGSPACE Gallery, where I was able to learn more about Singapore's urban development. Last but not least, I made friends on the tour, which helped expand my network," shared one of the students.

This five-day Singapore Study Tour provided students with a very unique opportunity to take a closer look at Singapore from different angles and perspectives. The Department is dedicated to cultivating graduate attributes and ensuring the agility and attractiveness of its programmes by offering diversified learning opportunities both inside and outside classrooms, adding high value to our students.



Professor Yiu-ming Cheung Received RGC Senior Research Fellowship for Project in Advancing Facial Reenactment Detection for Speaker Verification against Fake Videos



Professor Yiu-ming Cheung, Chair Professor in Artificial Intelligence of the Department of Computer Science, has been honored with the Senior Research Fellow Scheme (SRFS) 2023/24 by the Research Grants Council (RGC) in recognition of his remarkable research capabilities and the potential impact of his proposed project entitled: "Facial Reenactment in a Monocular Video Stream for Speaker Verification and Its Applications". The project aims to develop innovative AI-based methods to detect facial reenactment (FR) in a monocular video stream to fight fake videos towards speaker verification.

"I am deeply honored to receive this prestigious Award," Professor Cheung said. "This project aims to address the significant security challenges arising from the emergence of FR techniques by providing an effective solution: an FR detection approach based solely on visual information. The research outcomes will have wide-ranging applications in various FR-related domains and will also contribute to advancements in computer vision and machine learning research."

The RGC SRFS is introduced to provide sustained support to exceptionally outstanding academics to facilitate their research and promote research excellence. The ten SRFS awardees were selected for their research capability, contribution and potential impact of the proposed research project, proven research track record, leadership quality and vision in the chosen area of research. The selection panel highly commended Professor Cheung's submitted research proposal and recognised his enthusiasm demonstrated during the interview. He will receive a fellowship grant of about HK\$7.8 million over a period of 60 months.

The recognition of Professor Cheung's research capabilities and the potential impact of his project demonstrates the significance of his contributions to the fields of artificial intelligence and visual computing technology. It is expected that his groundbreaking work will pave the way for advancements in artificial intelligence and have far-reaching implications in various applications and industries.

Department of Computer Science Shines at HKBU President's Outstanding Performance Awards



The Department has received outstanding recognition at the HKBU President's Outstanding Performance Awards. Ten of our academic and non-teaching staff members were recognised with prestigious awards, honoring their exceptional contributions and outstanding performances. This recognition highlights the diverse range of talent and expertise within the Department, with three academic staff members and a non-teaching team receiving well-deserved awards.

Academic

President's Award for Outstanding Performance in Individual Teaching

Dr. Kristen Li

President's Award for Outstanding Performance in Research Supervision

Dr. Li Chen

President's Award for Outstanding Performance as Early Career Researcher

Dr. Eric Zhang

Non-Teaching

Team Award: Al x HK OpenCup 2022

Team Members: Ms. Phyllis Yu, Mr. Kenneth Cheng, Ms. Toby Yeung, Ms. Cindy Ng, Ms. Kiki

Cheng, Mr. Ron Siu and Mr. Victor Leung

"Congratulations to our academic and non-teaching staff members for their much-deserved recognition. Their exceptional talent and expertise are invaluable to our success, and we are incredibly proud of their accomplishments. We look forward to their continued success," said Professor Jianliang Xu, Head of the Department of Computer Science.

The Department firmly believes that our staff members are the driving force behind our success. We value the dedication and hard work of our staff, and we are committed to providing them with a supportive environment that fosters personal and professional growth.

Learn more:

<u>President's Award for Outstanding Performance</u> Reward and Recognition Scheme for Non-teaching Staff

MSc student team shined in the Al x HK OpenCup 2022



A team of MSC students (FAN Jinsong, GUO Zonghui, LI Yuemeng, SU Yue, XU Xinyu) got into the Finalist with project Al Carbon Neutral. In this competition, 152 teams signed up for the Tertiary Students Category. The OpenCup enables global talents to ideate innovative Al solutions to address real-world problems under the four chosen Sustainable Development Goals of the United Nations,

Congratulations to our MSc team!

Dr. Qichen Wang Wins ACM SIGMOD Research Highlight Award for Groundbreaking Data Science Research

Dr. Qichen Wang, a Research
Assistant Professor at the Department
of Computer Science in Hong Kong
Baptist University, has received the
esteemed ACM SIGMOD Research
Highlight Award for his paper titled
"Conjunctive Queries with
Comparisons," originally published in
SIGMOD 2022. This recognition is the
result of his fruitful collaboration with



Professor Ke Yi from the Hong Kong University of Science and Technology.

The award-winning paper illustrates a remarkable breakthrough in processing queries for conjunctive queries with comparisons, which is an essential area for OLAP and spatio-temporal queries, as well as in machine learning over relational data. Dr. Wang and Prof. Yi's research achieves an unprecedented running time and theoretical optimality, making it a significant contribution to the field of data science research.

Dr. Wang is dedicated to developing novel algorithms for query processing with nice theoretical guarantees that also work well in practice. His research spans various areas of database query optimization, including dynamic query processing, distributed query processing, and more. He believed that the finding of a new and asymptotically optimal algorithm for a large class of conjunctive queries with comparisons able to demonstrate order-of-magnitude speedups over SparkSQL on a variety of graph patterns and analytical queries.

The SIGMOD Research Highlight Award is a highly selective and prestigious accolade in the database community, recognizing research projects that exemplify core database research. The award aims to bring greater visibility to the selected works within the database community, industry partners, and the broader ACM community. This year, twelve articles were chosen from various conferences and community nominations.

The ACM SIGMOD focuses on the principles, techniques, and applications of database management systems and data management technology. Its members include software developers, academic and industrial researchers, practitioners, users, and students.

Congratulations to our MSc Graduates

A gathering was held for the graduates of 2021/2022 on 17 November 2022. Graduates have taken photos with the peers and staff.



To celebrate the completion of study, the Department held a reception for the 2022/2023 graduates on 31 May 2023.

Congratulations on your accomplishments, Class of 2023!

Graduation marks the beginning of the miraculous adventure ahead. We wish you all unparalleled success and extend our best wishes for your future endeavors.

Your affiliation with the Department is lifelong and will never expire. Do stay connected for enrichment and networking opportunities with us.

"When you have a dream, you've got to grab it and never let go." - Carol Burnett

Library and Email Services for Alumni

Our MSc alumni can continue to have access to the library services of HKBU by paying an annual fee. For details, please refer to

https://library.hkbu.edu.hk/services/apply-for-library-privileges/graduate-service-package/.

Stay Connected

To stay connected with us, please join our **WeChat Alumni Group**. The naming convention of the group: <"BU COMP MSc Alumni"> + <Cohort>. For example, if your intake year is 2020/21, you are eligible to join the group "BU COMP MSc Alumni 2021/22". Both ITM and AIS graduates from the same cohort will join the same group. Our department will make announcements to our alumni via this group from time to time. Stay tuned!

Department of Computer Science

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